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#### ABSTRACT

IDENTIFIERS

A profile of new students at a Practical Bible Training School (PBTS) was developed for the fall 1989 semester. American College Testing/Scholastic Aptitude Test scores, high school and college grade point averages (GPAs) and percentile ranks, college credits and degrees earned, years and grades in high school subjects, and placement scores in Bible and reading were taken from academic records for each student. A questionnaire completed by each new student (N=63) provided information about academic program, off-campus residency, sex and marital status, minority status, size of high school graduating class and home community, type of high school and high school program, participation in extracurricular activities, financial resources for college, family support for the decision to attend college, level of parents' education, and student predictions about first semester GPA and persistence. These factors were combined into an overall profile, characterizing PBTS students as single, non-parent, white, and dormitory residents, with parents or spouse approving of the decision to attend PBTS. Most were also male, between the ages of 18 and 19, out of high school or a previous college program for less than 1 year, residents of New York state, and planning to work while in school. Only 10 percent were attending college without their family's moral support. (TE)

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# DEVELOPMENT OF A PROFILE OF ENTERING STUDENTS AT PRACTICAL BIBLE TRAINING SCHOOL AS A TOOL FOR ACADEMIC ADVISING

Societal Factors Affecting Education

by

Ronald C. Kroll, M.A.

Practical Bible Training School

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### ABSTRACT

A profile of new students at Practical Bible Training School (PBTS) was developed for the fall 1989 semester. ACT/SAT scores, high school and college GPAs and percentile ranks, college credits and degrees earned, years and grades in high school subjects, and placement scores in Bible and reading were taken from academic records for each student. A questionnaire completed by each new student at registration provided information about academic program, off-campus residency, sex and marital status, minority status, size of high school graduating class and home community, type of high school and high school program, participation in extracurricular activities, financial resources for college, family support for the decision to attend college, level of parents' education, and student predictions about first semester GPA and persistence. These factors were combined into an overall profile.

The following characteristics were found to be representative of over seventy-five percent of new students: single (without children), white/Caucasian, dormitory resident, neither parent attended PBTS, and parents or spouse approved of the decision to attend PBTS. Over half of the students were male, between eighteen and nineteen years of age, residents of New York state, enrolled in one of the professional programs at the college, and planned to



work while in school. The majority of new students also had entrance and placement scores below the national average.

It was recommended that academic advisers should consider students with high school GPAs and test scores in the bottom quartile of the range to be potentially high risks. Several demographic factors that may adversely impact the academic performance and persistence of advisees were also identified. These included minority status, single parents, students over thirty years of age, those planning to work over twenty-five hours per week, those with poor academic records relying on financial aid, and those predicting a low first semester GPA or likelihood of dropping out of school before completing their program.



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#### INTRODUCTION

Practical Bible Training School (PBTS) is a small, private college specializing in training for ministry professions. The student body represents a population that is socially, economically, geographically, and academically diverse, yet demographic and academic profiles have never been collected on PBTS students. Furthermore, academic advisers receive little information about new students to assist them in identifying potential problems and helping students adjust to college life.

## Underlying Problem

In the wake of recent declining enrollments and increasing numbers of underprepared students, retention efforts and assistance for high risk students have become priorities at PBTS. Retention of new students is of particular concern, since much of the effort to stem enrollment declines has been directed toward recruitment. Faculty advisers have become key participants in the efforts to retain new studen's.

Advisers have received little information about new students in the past. In recent years, only the program in which a new student enrolled was provided to advisers.

Several administration and faculty members have expressed a need for information about demographic and academic factors



that may assist academic advisers in identifying and helping high risk students and others experiencing problems adjusting to college life. No plan currently exists to collect this information.

## Purpose of the Study

The purpose of this project was to collect and organize personal, demographic, and academic data on new students into a new student profile. The profile could be disseminated to academic advisers to provide an overall picture of the freshman class and to give a norm reference for individual students within that class. This information would be useful to advisers in targeting students who may need special assistance in acclimating to college life, particularly those who may be likely to experience a grade point average (GPA) below 2.00 or withdraw from school before completing their program.

## BACKGROUND AND SIGNIFICANCE

## Significance

In small, private institutions, such as PBTS, retention of one or two students each semester has a significant impact on the stability of the college budget. Likewise, the open admissions policy at PBTS necessitates significant help from advisers and others for some students to achieve the minimum standards required for graduation. Students who fail to make satisfactory progress at the institution either



withdraw early or are academically dismissed. Many students who withdraw early do so because federal financial aid is eliminated for academic probation students who fail to improve their GPA every semester. Significant pressure has been placed on the college faculty to make certain that these students are retained so that enrollment does not decline further.

The task of retaining new students is compounded by the problem that unlike returning students, new students lack an academic history at PBTS as a basis for identifying poor performance. At sers can easily find themselves in a situation where successfully identifying and helping high risk students has a direct bearing on the academic success of the student, the financial welfare of the institution, and eventually, the professional and financial welfare of the adviser. Unfortunately, advisers have little information to assist them in identifying new students who may be likely to experience poor academic performance or early withdrawal.

Since retention of new students is an ever-present concern for advisers at PBTS, any materials to assist in the identifying high risk students in the incoming freshman class would be both a personal and profession benefit to advisers. A student profile including indicators of high risk factors would fill much of this information void. It would be a beneficial tool for advisers at PBTS or other small, private colleges with an open admissions policy.



# Relation to the Nova Seminar

The development of a student profile is an application of concepts discussed in the Nova University seminar Societal Factors Affecting Education. The profile is a collection of academic, personal, and social data that has either a direct or indirect bearing on academic performance and student retention. The Societal Factors seminar emphasizes the impact of personal, social, and other non-academic factors on education. The project utilizes concepts discussed in that seminar in formulating a holistic approach to identifying a student's potential for academic success in college.

# Review of Related Literature

New college students are identified in the literature as the primary victims of attrition and poor academic performance. In a three-year study of freshman characteristics, academic performance, and persistence, Kalna (1986) finds that sixty percent of freshman are high risk, that thirty-four percent of high risk students withdraw from college, and that high risk students are responsible for eighty-five percent of the college's attrition. Ender (1987) states that effective intervention in academic advising for high risk students is only possible when these students are identified prior to enrollment.

Student profiles or student databases have been widely used at other institutions as one tool in meeting this need.



Klepper, Nelson, and Miller (1987) cite the student database at Canisius College as the most important resource in retention analysis. The database consists of high school rank and GPA, previous college GPA, Scholastic Aptitude Test (SAT) or American College Testing Program (ACT) scores, academic major, cumulative GPA at Canisius, financial aid record, membership in on-campus organizations and athletic teams, record of honors and awards, employment, and student participation in orientation and mentoring programs. Higbee and Dwinell (1988) include high school GPA, separate high school GPAs in English and mathematics, SAT verbal and mathematics scores, placement tests in English and mathematics, and reasons for attending college in their model for profiling and assisting high risk students.

Kelly and White (1986) detail the Freshman Testing,
Counseling and Advising Profile (FTCAP) used at Penn State
University for over thirty years. Academic information
taken from official records includes high school GPA and
class rank, SAT scores, academic major, and placement scores
in English, mathematics, and chemitury. The official
records data are supplemented by a self-reported student
questionnaire identifying parental educational level, study
habits, expected college grades, reactions to high school
courses, educational plans, and reasons for attending Penn
State. As much academic information as possible is taken
from official records, since students tend to inflate grades
and test scores when self-reported.



Several demographic, personal, and academic factors have been identified in the literature as having an effect on academic performance and student retention. One of these factors is the ability to plan ahead and make long-range decisions about college and life. Hudesman et al. (1985) find that the ability to plan ahead is distinctly related to academic success in areas of college admission, academic performance, and graduation.

In a study of 182 community college students, Healy et al. (1984) find a significant relationship between career maturity (career planning and exploration, decision making, and occupational preferences) and academic performance.

Healy and Mourton (1987) conducted a similar study with 146 California community college students in a transfer course, finding that GPA and career development skills are highly related. Blustein et al. (1986) also find career exploration, even to the point of frequent shifts in career directions, to be a major factor relating to high grades.

Sova (1986) compared the pass/fail rate of students who enrolled late and students who enrolled before the registration deadline in freshman English courses at Broome Community College. Eighty-one percent of regularly admitted students passed their English course, while only fifty percent of late admitted students passed the course. The pass/fail rate of students taking a developmental English course and that of students taking a college credit course was similar.



Chatman (1986) finds a correlation between the mean SAT score of applicants and length of time prior to fall enrollment. The mean SAT score was highest at the earliest point in the study, fifty-one weeks prior to the fall term. The mean SAT score leveled off during the forty-ninth to the forty-second week, then steadily declined to the start of the term. This suggests a general trend of higher SAT scores for early applicants, and lower SAT scores for those applying shortly before the beginning of the fall term.

Comparisons of ability between philosophy and religion majors and students who are undecided about a major also indicate superior ability for career-minded students.

Ramist and Arbeiter (1986) find that SAT mathematics scores were marginally higher for examinees intending study in religion as compared to those undecided about an area of study, but that verbal scores were significantly higher for those intending to study religion. Nationwide, "undecided" students averaged 33.3 points behind philosophy and religion students in SAT verbal scores.

ACT scores for 1986 are similar. Undecided students had a mean ACT composite score of 19.5, compared to 20.1 for religion majors (American College Testing Program, 1986).

Solmon and LaPorte (1986) find that between 1967 and 1983, the share of quality students was consistently low (1.6 to 4.2 percent) among students not selecting a major. Consequently, being undecided about a major may indicate some academic disadvantage.



Philosophy and religion majors would have academic similarities to students in the three-year program at PBTS, while those undecided about a major highly represent students in the one-year program at PBTS. Since students frequently enroll in the one-year program at PBTS because they have not made a decision about a career direction, both one-year students and three-year students who have not declared a major may be susceptible to low grades.

Differences in academic performance between one-year and three-year students have been documented at PBTS. Kroll (1989) studied the academic performance differences of students in the one-year program and those in the three-year program. A significant difference in both the mean grades of the two groups and the pass-fail ratio was identified. Three-year students had higher mean grades and were less likely to fail than one-year students. This difference was consistently found for each of the four years included in the study.

The academic problems of the undecided student may be broader than just that of low grades. Noel et al. (1985) identify uncertainty about an academic major and future career to be one of the two main factors in attrition.

Absence of goal clarity is one of the key issues contributing to student withdrawal according to Tinto (1987).

Kalna (1986) finds clear goal identification, commitment to college, and motivation to finish to be very important factors in performance and persistence. Sandusky (1987)



finds students who do not declare a major are more likely to have low first semester GPAs and are significantly more likely to withdraw from school during the first year.

Another factor found to be significant in retention and academic performance is age. Healy and Mourton (1987) find a positive correlation between age and GPA among California community college students. Lavin et al. (1983) find significant age differences in the distribution of students taking regular programs and those enrolled in special programs for academic underachievers at City University of New York (CUNY). Older students were more likely to be found in regular classes, and younger students were more likely to be found in special classes.

In contrast, Lewis et al. (1985) find little difference in the reading, writing, and mathematics ability of 7,048 freshmen entering San Joaquin Delta College in 1984 and 1985 based on age. Pascarella et al. (1981) find older students experience lower grades and greater attrition. Hudesman et al. (1986) find that there is little difference in age for students in special programs. Winston et al. (1984) identify that returning adult students experience greater obstacles in achieving success in college. Harris and Hansson (1986) find that reading comprehension scores, reference skills, and English scores decrease with age in a study of 498 entering freshmen at Cosumnes River College in Sacramento, California. Metzner and Bean (1987) find that students under age eighteen are both more likely to have a



low GPA than older students and are more likely to withdraw from college before completing a program.

The relationship between age and poor academic performance is associated with both extremes in some studies. The Maryland Longitudinal Study Steering Committee (MLSSC, 1987) finds that freshmen under eighteen or over nineteen years of age are more likely to leave college before completing a degree program. Among British university students, Woodley (1984) finds students under eighteen or over forty when entering college least successful in graduating. Performance for students between twenty-six and thirty is the highest of all age groups.

Employment during the school year can have a significant impact on the academic performance and persistence of students. The U.S. Labor Department reports that forty-seven percent of full-time college students hold jobs while in school ("Notebook," 1989). Winston et al. (1984) find that students who work full-time are a higher academic risk. Students who plan to work while in college have ACT scores below the national average (American College Testing Program, 1986). MLSSC (1987) finds that students who withdraw from college before completing a program are more likely to hold a job while attending college than are other students. Cherne et al. (1985) find students in basic skills courses plan to work while in school more often than students enrolled in regular classes. However, Balunas (1986) finds no significant difference in the number of



hours students work and their GPA at Broome Community College, an institution in the same local market as PBTS.

Minority status, especially on a predominantly white campus like PBTS, may be a predictor of need for special attention from academic advisers. Dodge (1989) reports that ACT composite and SAT combined scores for minorities were lower than those for whites in 1988-89. Similar results are reported for 1986 (American College Testing Program, 1986), with Afro-American/black, American/Alaskan native, and Mexican American/Chicano minorities having ACT scores significantly below the national average.

Lewis et al. (1985) find significant differences in the reading ability of 7,048 freshmen entering San Joaquin Delta College in 1984 and 1985 based on ethnicity. Over half of those identified as Black/Negro or Asian/Pacific Islands tested below the ninth grade level in reading (55% and 61% respectively). Forty-five percent of Students classified as Hispanic/Spanish Surname tested below the ninth grade level, as did thirty-two percent of the American Indian/Alaskan students. In contrast, only sixteen percent of those classified as White/Caucasian had reading scores below the ninth grade level.

Numerous other researchers have found indications that minorities may experience greater problems with attrition and poor achievement than do whites. Pounds (1987) attributes problems with minority retention and academic performance on predominantly white college campuses to



underdeveloped prior academic skills, less satisfaction with college, and feelings of isolation and alienation. Hudesman et al. (1986) find that eighty-five percent of students requiring special services for high risk students at New York City Technical College are minorities. Martin and Brown (1986) find that of 375 students enrolled in a special program for students with severe educational and economic disadvantages at Rockland Community College, 89.3 percent were minorities, with blacks accounting for 48.7 percent and Hispanics 41.2 percent. Ott (1988), Metzner and Bean (1987), Winston et al. (1984), and Pascarella et al. (1981) also find higher attrition and lower achievement among minority college students. Advisers may need to take special care with minority advisees to insure that poor performance and attrition are minimal.

Geographic home community may be another beneficial element in a student profile. Parris (1982) finds differences in academic performance between rural and urban college students. In his study of one hundred freshmen at a liberal arts college, students from agricultural communities and communities with 2,500 or fewer inhabitants had significantly higher GPAs over two semesters than students from manufacturing and urban communities (defined as incorporated villages, boroughs, towns, or cities with over 2,500 inhabitants).

Winston et al. (1984) identify that first-generation college students, experience greater obstacles in achieving



success in college. MLSSC (1987) finds that first generation college students, particularly those whose father had not earned a high school diploma, are more susceptible to early withdrawal from college. Martin and Brown (1986) find that one-third of students enrolled in a special program for students with severe educational and economic disadvantages were first generation college students.

Moores and Klas (1989) find on-campus residence to be related to retention at Memorial University of Newfoundland. Seventy-one percent of residence hall students remained in school after two semesters, compared to thirteen percent of commuters. Nettles, Thoeny, and Gosman (1986) also associate living in on-campus housing with high college GPAs. MLSSC (1987) finds living off-campus, either in one's own apartment or with parents, to be related to attrition. Balunas (1986) finds students who live with their parents have lower GPAs than those who lived on their own.

Tinto (1988) explains that commuter student do not go though as much separation from their former social group as do residence hall students. Because they never make the social bond to college life, they are often outsiders to the social and academic group structure. They are further inclined to withdrawal or inadequate performance by greater exposure to external forces and responsibilities that draw them away from college life.

Noel et al. (1985) also find integration into campus life to be a significant factor in persistence. Brown and



Russell (1988) find that persisters invest more time in interaction with advisers and faculty on an informal level. Pascarella et al. (1981) find students who join campus social organizations have lower attrition and superior academic performance than those who do not. MLSSC (1987) finds that students who withdraw from college early are more likely not to have participated in college activities than are their peers. Participation in college activities and social life is one of the five key factors identified by Kalna (1986) in predicting retention.

The type of high school and type of program taken in high school may be important profile factors. Dodge (1989) reports that students who did not complete a core curriculum of four years of English and three years each of mathematics, natural science, and social studies in high school averaged 4.2 points lower on their ACT composite scores. Students who reported taking business/commercial, vocational/occupational, or general programs of study in high school had ACT scores significantly below the national average (American College Testing Program, 1986). In contrast, students who reported taking a college prepatory program or advanced placement classes in English, mathematics, social studies, natural science, or foreign language had ACT scores significantly higher than the national average.

Willingham and Morris (1986) also identify advanced placement in high school as a strong predictor of college



performance. Advanced placement students were significantly more likely to be in the top ten percent of their college graduating class and have a higher college GPA. Four-year college attrition for advanced placement students is significantly less than that of their peers. These comparisons hold true in separate analyses for both men and women, as well as public, private, selective, and less-selective colleges. Willingham and Morris also found correlations between advanced placement and attendance at either a large public high school or a private school, early application to college, parental employment in professional, managerial, or elected careers, SAT subtest scores over six hundred, and greater extra-curricular activities in all areas except athletics.

The importance of the type of high school and high school program is cited by various researchers. Taking a college prepatory program in high school is positively correlated to persistence to graduation in college according to MLSSC (1987). Nettles, Thoeny, and Gosman (1986) find attendance at a private high school to be significantly related to a high college GPA in their study of thirty eastern and southern colleges and universities. Laing, Engen, and Maxey (1987) find in their nationwide study that adding just one semester of a course resulted in an ACT score an average of 1.9 points higher on the respective subtests in English, mathematics, social studies, and natural science.



There is a strong relationship between high school performance, grades, and student retention in college. Pascarella et al. (1981) find students with lower high school GPAs have lower college GPAs and are more likely to withdraw early. Metzner and Bean (1987) find poor high school performance to be one of the best predictors of a low college GPA. According to Moores and Klas (1989), eightyone percent of dropouts have high school GPAs below seventy. Tracey and Sedlacek (1987) find that the best predictors for first semester college GPA are high school grades and SAT scores, and that these are also effective predictors of three- and five-semester retention. MLSSC (1987) finds that freshmen who ranked in the lower half of their high school class are significantly more likely to withdraw from college early. Similar findings are reported by Sandusky (1987), Syarif and Harris (1987), Nettles, Thoeny, and Gosman (1986), and Thornell and Jones (1986).

ACT and SAT test scores may be another useful indicator for advisers trying to identify new advisees who have a high risk of withdrawal or poor grades. Nettles, Thoeny, and Gosman (1986) find high SAT score to be related to a high college GPA. Syarif and Harris (1987) also find these test scores to be related to academic achievement in college. Thornell and Jones (1986) find significant correlations between ACT composite score and GPA, and each ACT subtest score and GPA. Ott (1988) finds significant differences in SAT verbal and mathematics scores and high school GPAs of



university students who were academically dismissed and those who had satisfactory performance.

Klein and Grise (1987) find significant differences between the cumulative GPA of students who received Graduation Equivalency Diplomas (GED) and that of high school graduates in Florida community colleges. The mean cumulative GPA of GED students was 2.54, compared to 2.75 for students who were high school graduates. Only twenty-six percent of GED students complete two-year degrees, compared to forty-nine percent of students who were high school graduates. In contrast, Clark (1987) finds no significant difference in the GPAs of high school graduates and GED recipients at the Community College of Allegheny County.

Sandusky (1987) finds that GED holders and those with low reading assessment scores were more likely to have low first semester GPAs or to withdraw from college during the first year. Sandusky also finds that students who did not have high school GPAs or reading assessment scores on record were significantly more likely to have low GPAs or withdraw than students with low high school GPAs or low reading assessment scores.

Student predictions may be a valuable component in a new student profile. MLSSC (1987) finds that students who claimed that their chances of dropping out or transferring before graduation were good or very good were more likely to have lower grades and higher attrition than other students. Pascarella et al. (1981) find students who said



that their likelihood of failing one or more courses was high or that their likelihood of temporarily dropping out was high were more likely to have a low GPA or to withdraw early. Metzner and Bean (1987) find a lack of personal commitment to college to be correlated to attrition.

Several other factors are cited in the literature as having an influence on academic performance and persistence. Kessler (1987) and Cherne et al. (1985) find low placement test scores to be reflected in freshman GPA and attrition.

Nettles, Thoeny, and Gosman (1986) find married students less likely to withdraw from college. Syarif and Harris (1987) find parental education level, family size and income, and family reinforcement and expectations of success in college to be key factors in persistence and performance.

MLSSC (1987) finds that graduating in a high school class with less than one hundred students is a characteristic of nonpersisters.

There is significant evidence in the literature that the characteristics of high risk students are many and diverse. Students who made a late decision to attend college, who are undecided about a major or professional goal may be in danger of early withdrawal or unsatisfactory grades. Students who are under eighteen over twenty-two years of age when first enrolling, those who plan to work while in college, minorities, first generation college students, commuter students, and those who do not plan to become involved in campus social activities may also be high



risk. Other factors in retention and academic performance include the student's high school program, advanced placement courses, years in core subjects, high school GPA and rank, ACT/SAT scores, and placement test scores. GED students may experience greater problems than students with a high school diploma, as well as students who indicate that they are unsure about their commitment to stay in college, and those who lack the moral support of their family in attending college.

Academic advisers would benefit from knowing about these characteristics among their new advisees. The added information from such a profile would be useful in identifying and helping students who otherwise might go unnoticed until their grades were beyond the point of timely remedy or the student had already made an irrevocable decision to withdraw from college.

## <u>Definition</u> of Terms

One-year Bible certificate program. A curricular program offered at PBTS consisting of thirty-two credit hours. Its principal design is for completion in a two-semester sequence, and is primarily marketed to recent high school graduates who have not yet determined their future educational or career plans. Program emphasis is on developing general Bible knowledge and Christian character.

Three-year diploma program. The staple of the PBTS curriculum, consisting of ninety-six credit hours with a



fifty-one hour major in Bible and a thirty-hour concentration in one of six ministry related fields: pastoral, missions, church ministries, youth, women's ministries, and music. The program is similar to baccalaureate programs but without a year of liberal arts or general education. Program emphasis is on developing indepth Bible knowledge and career skills in ministry. The church ministries and youth programs were a single program prior to 1988, and still retain similar curricula. Since the number of students in church ministries is small, youth and church ministries were discussed as a single program in this study.

Special student. A classification used to identify a student who has been fully accepted to pursue either the one-year or three-year program at PBTS, but has elected to take selected courses rather than pursue a program leading to graduation. Special students may be either full-time or part-time.

Day college student. An academic designation at PBTS used to identify students not exclusively enrolled in evening school courses. Day college students differ from evening college students in that they must complete all application procedures and be accepted for attendance prior to matriculation. Only day college students may take more than six credit hours per semester. Day college students must be enrolled in the three-year program, one-year program, or be classified as a special student. Day college



enroll in courses offered during the daytime or evening.

Most relevant to this project, only day college students are assigned to a specific academic adviser.

Percentile rank or normalized score. Percentile rank is a designation used to identify the specific placement of an individual within a population. It is often referred to as a normalized score on nationwide examinations, such as the ACT and SAT. Percentile ranks from different populations can be compared, since they are representative of proportions of one hundred. When calculation of percentile rank was required, the following formula was used:

(N - R) + N x 100 = PR, where "N" is the total number of persons in the population, "R" is the individual's numerical rank order from the top of the population (i.e., first, second, third, etc.), and "PR" is the rank expressed as a percentile. For example, a student who was sixth in his high school class of forty would be in the eighty-fifth percentile ([40 - 6] + 40 x 100 = 85).

Quartile Distribution. Placement of a person's score in one of the four quarters of a population's range of percentile ranks or numerical scores. Quartile distribution of percentile ranks would be as follows: 76-99 = top quarter, 51-75 = second quarter, 26-50 = third quarter, 1-25 = bottom quarter. For other numerical scores, the quarters are determined by dividing the range of numbers into four equal quarters. Quarters in this study are



referred to from highest to lowest as top, second, third, and bottom quartile.

Serial Date. A month-day-year date represented as a serial number. In a serial date, consecutive days are represented by arbitrarily-designated consecutive integers. The serial date is useful for statistical analysis of mean, standard deviation, median, and frequency distribution, since serial dates represent a range of numbers. Although serial dates were used for all computations, dates reported in this study were converted to the familiar month-day-year format for ease of reading.

Nontraditional Education. Three kinds of nontraditional education were identified: programmed/independent study, home schooling, and Graduation Equivalency Diploma (GED). Programmed/independent study was a designation used for high school programs which do not use the traditional format of group instruction and teacher-student interaction. Most of these approaches are textbook-based, with very limited or no teacher-student contact in the learning process. This approach is used by the widely distributed Accelerated Christian Education curricula, used by many small, church-based schools. Many PBTS students come from such schools. Home schooling refers to students who received their education without attendance at a public or private high school. Instruction is provided by a parent or programmed workbook in the home. The GED is available to persons who did not complete high school by satisfactory



completion of a state-wide, department of education produced test of high school competencies.

#### **PROCEDURES**

## Population

The population consisted of all new students who enrolled at PBTS for the fall 1989 semester and were assigned to academic advisers. All full-time and part-time students registered as day college students in credit courses, both first-time freshmen and transfer students, were included. Sixty-three new students registered.

## Instrumentation

Data was recorded on the worksheets in Appendixes

A and B. The worksheets were developed for this project by
the author, and reviewed for validity and appropriateness to
the institution by the vice-president for academic affairs
at PBTS. Information from the worksheets was collated into
an overall profile through the use of database software and
a custom analysis template designed by the author for an
IBM PC/XT computer.

# Data Collection

All new students were asked to complete the new student questionnaire in Appendix A at fall registration on August 28, 1989. Students who receive permission to register before or after registration day were asked to complete the



questionnaire in the office of academic affairs when they fill out their registration materials. The academic record worksheet in Appendix B was completed by personnel in the office of academic affairs, and the data was taken directly from student records.

## Treatment of Data

Several scale conversions were necessary to provide data equivalency for some items on the worksheet in Appendix B. Since the information would eventually be distributed to faculty advisers who may not be familiar with high school grading systems, percentage and letter grades recorded on the academic record worksheet were translated into quality points using the conversion scale in Appendix C. The quality point distribution is identical to the one currently used at PBTS.

Grades already recorded as quality points were retained without alteration. All other GPAs were converted to a 4.0 scale on the worksheet. The mean GPA per credit was calculated for students who had records from more than one high school or more than one college. High school rank was converted from a rank placement number (e.g., 57th out of a high school graduating class of 100) to a percentile rank (e.g., 43rd percentile or 43%).

Information from the worksheets in Appendixes A and B was entered into a computer database. Records were then examined to eliminate any discrepancies between data in the



student's official record in the academic affairs office and student-reported information on the questionnaire. In the event of a discrepancy, the official record was accepted as accurate and the student-reported information was disregarded.

Two derivative calculation were added to the statistics. Since students were asked to indicate the types of high school activities in which they participated and the types of college activities in which they planned to participate, it was possible to generate numerical data on the number of activity areas (athletic teams, musical groups, debate/drama, and student government) in which the student had been involved or planned to become involved. To streamline comparisons between the programs, SAT combined scores were also calculated as their respective ACT composite scores using the conversion table in Appendix D. These numerical calculations were added to the student profile database.

Mean, median, high, low, standard deviation, and frequency distribution were calculated for interval data. These included:

ACT composite, subtest, and percentile rank scores
SAT combined, subtest, and percentile rank scores
Placement test scores and percentile ranks in
Bible, and reading comprehension and speed
High school GPA and college GPA
High school rank
Years and grades in high school core subjects
Credits previously taken in college
Years since last in school
Application date (serial date) and age at
matriculation
high school activities and college activities



Frequency distributions were calculated for all remaining data since these were nominal in nature. Frequencies of interval data were distributed in four groups representing each of the four quarters of the new student population at PBTS. For normalized test scores (percentile ranks), the four quarters represented the national population having taken the respective test. The population for high school percentile ranks was the high school graduating class.

The resulting statistics were organized into an overall profile of entering students at PBTS for the fall 1989 semester. A comparative profile was also constructed so that advisers could review differences between the major demographic groups at PBTS. The comparative profile provided a matrix of the following factors: academic program, sex, type of high school attended, type of high school program, age category, marital status, academic probation or remedial English requirement, financial resources for college, entrance and placement test scores, and high school or college academic record.

## Limitations

Results were limited to new students enrolling at PBTS in the fall 1989 semester. The student profile in other years and at other institutions may vary considerably. The profile was also limited to the specific questions on the new student questionnaire in Appendix A and the academic record worksheet in Appendix B. Other variables or



additional information available from other sources was not taken into consideration in the overall profile.

## Assumptions

It was assumed that the responses given by students on the questionnaire in Appendix A and the data collected from student records on the worksheet in Appendix B were a true and accurate representation of the student's experiences and academic abilities. It was also assumed that the questions included on both worksheets cover the significant variables that would be useful to academic advisers. The conversion tables in Appendixes C and D were assumed to be sufficiently accurate for this analysis.

## RESULTS

Sixty-three new students enrolled at PBTS in the fall 1989 semester. Demographic data by sex, marital and parental status, age, years since last in school, minority status, home state or region, size of home community, highest level of parent's education, parental alumni status, and in-school residence are given in Table 1. Complete data on each profile element is given in Appendix E. Eight demographic and personal factors were found to be represented by over half of the new student population. These were men (52%), single students without children (87%), those between eighteen and nineteen years of age (52%), students who had been out of high school or a previous coliege program for

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Table 1
Demographic and Personal Data on New Students

Demographic Category	Number of Students	Percentage of New Students	
Sex:			
Men	33	52	
Women	30	48	
Marital/Parental Status:			
Single, No Children	55	87	
Single Parent	2	3	
Married, No Children	3	5	
Married, One Child	1	2	
Married, Four Children	2	3	
Age:			
Under 18	8	13	
18 to 19	33	52	
20 to 22	8	13	
23 to 30	7	11	
31 to 42	7	11	
Years Since Last in School:			
Less than 1	38	60	
1 to 5	15	24	
6 to 10	4	6	
11 to 22	6	10	
Minority Status:			
White/Caucasian	60	95	
Black/Afro-American	3	5	
Home State/Region:			
New York	42	67	
Pennsylvania	13	21	
New England	4	6	
Midwest	3	5	
Southwest	1	2	
Size of Home Community:			
Rural (under 2,500)	29	46	
Small Town (2,500-25,000)	22	35	
Urban (over 25,000)	12	19	

(Continued)



Table 1 (Cont.)

Demographic Category	Number of Students	Percentage of New Students*		
Highest Level of Parent's Education:				
Some Grade/High School	3	5		
High School Graduate	26	41		
Some College	17	27		
Associate Degree	6	10		
Bachelor's Degree	7	<b>1</b> 1		
Master's Degree	3	5		
Doctorate Degree	1	2		
Parental Alumni Status:				
Parents Never Attended PBTS	56	89		
One Parent Attended PBTS	5	8		
Both Parents Attended PBTS	2	3		
In-School Residency:				
Dormitory Resident	48	76		
Parent's Home	5	8		
On-Campus Apartment	5	8		
Off-Campus Apartment/Home	5	8		
Application Submitted for Fall T	erm:			
Over 9 Months Before Term	9	14		
6 to 9 Months Before Term	<b>11</b>	17		
3 to 6 Months Before Term	28	44		
Under 3 Months Before Term	15	24		

<sup>\*</sup>Percentages rounded to the nearest integer; total may not equal 100.

less than one year (60%), residents of New York state (67%), white/Caucasian students (95%), students who reported that neither of their parents had attended PBTS (89%), and dormitory residents (76%).

Twenty-three students enrolled in the one-year program and thirty-seven enrolled in the three-year program. An additional three students registered as special students; only one three-year student did not declare a major. The pastoral major was the largest of the six three-year



programs; however, no single major enrolled over seventeen percent of the incoming class. Thirty-seven percent of new students were placed on academic probation for their first semester. Table 2 outlines the distribution of new students among the various programs and academic classifications.

Table 2
Program Enrollment and Academic Status of New Students

Analysis Category	Number of Students	Percentage of New Students
Academic Program:	****	
One-year	23	37
Three-year	37	59
Pastoral	11	17
Missions	9	14
Youth	5	8
Music	5	8
Women's Ministries	4	6
Church Ministries	2	3
Undecided	1	2
Special Student	3	5
Academic Status:		
Regular Enrollment	40	63
Academic Probation	23	37
Remedial English Required**	10	16

<sup>\*\*</sup>Percentages rounded to the nearest integer; total may not equal 100.

\*\*Remedial English students are on academic probation, and are included in the statistics for academic probation.

Entrance and placement tests consisted of the ACT or SAT, the American Association of Bible Colleges Bible Examination, and the Minnesota Reading Assessment. The mean ACT composite score among new students was 15.4 and the mean SAT combined score was 815.4. Either ACT or SAT scores were



reported for forty-nine students; however, fourteen students were admitted without ACT or SAT scores (test scores were waived for five of these because of prior college education). The mean score of students taking the Bible Examination was 73.6, and the mean reading comprehension score was 69.6. The mean speed at which new students read was 208.1 words per minute. Breakdowns for entrance and placement test scores are given in Table 3.

Table 3

Mean, Range, and Distribution of Entrance and Placement
Test Scores for New Students

Test	Mean	Range	Dis	tributi	on of S	cores*
			Top ¾	2nd ¾	3rd %	Bottom ¼
ACT Scores: N=26						
Composite	15.4	7-27	3	10	9	4
English	16.8	6-25	5	10	8	3
Mathematics	11.5	1-28	1	6	11	8
Social Studies	14.7	4-30	5	4	12	5
Natural Science	18.4	4-29	4	16	5	1
SAT Scores: N=25						
Combined	815.6	470-1120	7	5	8	5
Verbal	410.8	240-620	5	4	13	3
Mathematics	405.6	220-610	3	8	9	5
Bible Examination: N	=63					
Score	73.6	19-138	6	21	25	11
Reading Examination:	N=51					
Comprehension	69.6	30-88	25	15	8	3
Speed	208.1	75-392	5	13	18	15

<sup>&</sup>quot;Quartile Ranges: ACT scores 23-30, 16-22, 9-15, 1-8; SAT combined scores 930-1120, 730-920, 530-720, 520-330; SAT subscores 530-630, 420-520, 310-410, 200-300; Bible examination scores 110-140, 79-109, 48-78, 17-47; reading comprehension scores 74-88, 59-73, 44-58, 29-43; reading speed scores 314-393, 234-313, 154-233, 74-153.



Nationwide percentile rankings for the ACT, Bible, and reading tests were available for all new students who took these examinations. ACT and SAT scores reported on high school transcripts were accepted in leu of reports from the American College Testing Program or the College Board, and some high school transcripts did not include the SAT percentile ranks. Consequently, only eighteen of the twenty-five students who took the SAT had percentile ranks on record.

The most striking feature of the percentile rank analysis is that none of the mean scores for new students at PBTS was above the fiftieth percentile nationwide. The highest mean percentile was that of the Bible Examination at 49.2, followed by the ACT English subscore percentile of 43.8. The lowest percentiles were recorded for mathematics, with the ACT percentile at 29.9 and the SAT percentile at 30.1. More students scored in the bottom quarter nationwide than did those in the top two quarters on all of the ACT subtests. Data on percentile rank scores and their quartile distribution nationwide are given in Table 4.

There was considerable diversity in the type of high school attended and type of program taken. Twenty-two of the twenty-four students who attended private Christian high schools graduated from those schools. Forty-one students attended a public school some time during their four years of high school. Four students received home schooling, and three received GEDs. Eleven students said that their high



Table 4

Mean, Range, and Distribution of Entrance and Placement Test
Nationwide Percentile Ranks for New Students at PBTS

Test	Mean	Range	Perc	entile	Distrib	oution*
			Top	2nd	3rd	Bottom
			**	*	1/4	*
ACT College Bound Per	centile Ran	king: N=26	ne ann i fhaill a fhaill an fhaill ann an Air a			
Composite	34.3	2-93	2	3	10	11
English	43.8	2-92	5	4	6	11
Mathematics	29.9	1-93	1	4	8	13
Social Studies	39.0	2-97	5	Ą.	6	11
Natural Science	37.2	1-86	3	3	9	11
SAT College Bound Per	centile Ran	king: N=18				
Verbal	46.6	11-94	6	0	6	6
Mathemalics	30.1	1-66	0	4	3	11
Bible Examination: Na	=63					
Percentile Rank	49.2	19-138	15	15	13	20
Reading Examination:	N=51					
Comprehension	41.8	30-88	7	14	13	17
Speed	38.8	75-392	13	5	11	22

<sup>\*</sup>Quartile Ranges: 76-99, 51-75, 26-50, 1-25

school experience included a programmed or independent study approach to education. Only twenty-three students took college prepatory programs in high school.

Eight students received New York Regents diplomas.

This represents thirteen percent of all students; however, since only forty-two students listed New York as their state of residence, it would be more accurate to say that nineteen percent of New York students received Regents diplomas.

Sixty percent of new students had a high school graduating class of one hundred or less, with ten students coming from



high school programs with less than ten students in the graduating class. Information about the type of high school attended, size of school, and type of program taken is given in Table 5.

Fourteen students responded that they had previously attended college. Only ten had transcripts on file. The median number of credit hours earned was forty-eight, with

Table 5

Type of High School Attended and Nature of High School Program Taken by New Students at PBTS

Analysis Category	Number of Students	Percentage of New Students	
Type of School Attended: **			
Public	41	65	
Christian	24	38	
Traditional Classroom	13	21	
Independent/Programmed	11	17	
Home Schooling	4	6	
GED	3	5	
Size of High School Graduating	Class:		
Under 10	12	19	
10 to 50	13	21	
51 to 100	13	21	
101 to 300	15	24	
Over 300	10	16	
Type of High School Program Tal	ken:		
New York Regents Diploma """	8	13	
College Preparation	23	37	
General Program	21	33	
Business	7	11	
Vocational/Skilled Trades	10	16	
Not Sure	2	3	

<sup>\*</sup>Percentages rounded to the nearest integer, total may not equal 100.



<sup>&</sup>quot;"Multiple responses possible. N=63.

<sup>&</sup>quot;""Students with Regents Diplomas are also included in the college preparation category.

two students earning less than ten credits and five students earning 120 or more. The mean college GPA was 2.98.

Table 6 provides a summary of the prior college experience among new students.

Table 6
Previous College Experience Among New Students

Analysis Category	Number of Students
Prior College Attendance: N=14	
1 Semester (under 16 credits)	2
1 Year (16-45 credits)	4
2 Years (46 to 75 credits)	3
3 Years (76 to 105 credits)	1
4 Years (over 105 credits)	4
Degrees Earned: N=14	
Associate of Science	2
Bachelor of Arts	2
Bachelor of Science	2
College GPA: N=10*	
3.5 to 4.0	2
3.0 to 3.4	2
2.5 to 2.9	5
2.0 to 2.4	1

<sup>\*</sup>Only 10 of the 14 students reporting prior college experience had transcripts on file.

Fifty-five new students had high school transcripts on file. Forty-six of the transcripts included a high school GPA and forty-one included a graduation rank. New students had a mean high school GPA of 2.6, and a mean high school percentile rank of 43.8. The median high school GPA was 2.2, and the median rank was forty. Eighty-form percent of students with GPAs on record had a GPA between 1.8 and



3.7 (the two middle quartiles of the range of GPAs). In contrast, sixty-three percent of those who had a high school rank on record were in the bottom half of their graduating class. High school GPA and rank statistics are summarized in Table 7.

Table 7

High School GPA and Percentile Rank Distribution for New Students

Analysis Category	Number of Students			
High School GPA: N=46				
3.8 to 4.0	3			
2.6 to 3.7	13			
1.8 to 2.5	23			
1.0 to 1.7	7			
High School 'Percentile Rank: N=41				
Top Quartile	8			
Second Quartile	7			
Third Quartile	13			
Bottom Quartile	13			

All of the students with high school transcripts on file had taken English, mathematics, social studies, and natural science during their four years of high school.

Over half of the students had four years of English, three or more years of mathematics, four years of social studies, and two or more years of science. In addition, twenty-nine students took a foreign language in high school. Table 8 summarizes the number of years taken in high school subjects and grades received.



Table 8

Years Taken and GPAs Received in High School Subjects
Taken by New Students

Analysis Category	English Ma		Social Studies	Science	Foreign Language	
Total Students	55	55	55	55	29	
Years of Study:						
Mean	3.9	2.9	3.6	2.5	1.9	
Median	4	3	4	2	2	
Number of Students Ta	king:					
One Year	0	2	0	3	12	
Two Years	1	14	0	28	9	
Three Years	4	25	22	17	7	
Four Years	50	14 33		7	1	
GPAs in Courses:						
Mean	2.6	2.4	2.5	2.4	2.5	
Median	2.4	2.3	2.2	2.7	2.5	
Number of Students wit	th GPA of:					
3.2 to 4.0	20	8	18	13	10	
2.3 to 3.1	14	23	8	17	7	
1.4 to 2.2	18	16	21	15	6	
0.5 to 1.3	3	8	8	10	6	

Students were asked about their participation in athletic teams, musical groups, debate and drama, and student government during high school, and their plans to be involved in these areas during college. Fifteen students had not participated in any extracurricular activities during high school, and eighteen did not plan to participate in any of these areas during their college years. The mean number of activities that students participated in during high school is 1.5, and the mean anticipated participation in college is 1.0. The median for both categories is 1.0.



Participation in high school activities and plans to participate in college activities are outlined in Table 9.

Twenty-six new students planned to use financial aid to pay for their education, while only seventeen indicated that they had sufficient funds in savings to pay for the entire year. Thirty-eight students planned to work while in school, and all but six students had the moral support of

Table 9

New Student Participation in Extracurricular Activities in High School and Plans to Participate in Extracurricular Activities in College

Activity Category	Number of Students		
High School Participation in	Activities:		
Athletic Teams	39	62	
Music Groups	28	44	
Debate or Drama	15	24	
Student Government	10	16	
None of the Above	15	24	
One of the Above	20	32	
Two of the Above	16	25	
Three of the Above	8	13	
Four of the Above	4	6	
Plans to Participate in Coll	ege Activities:		
Athletic Teams	27	43	
Music Groups	19	30	
Debate or Drama	11	17	
Student Government	4	6	
None of the Above	18	29	
One of the Above	31	49	
Two of the Above	12	19	
Three of the Above	2	3	
Four of the Above	0	Ō	

<sup>&</sup>quot;Percentages rounded to the nearest integer; total may not equal 100.



the parents or spouse in attending PBTS. Table 10 includes data on the financial resources available to new students to pay for their education, as well as the moral support behind their decision to attend PBTS.

New Student Financial Resources for Attending College and Degree of Moral Support from Parents or Spouse over the Decision to Attend PBTS

Support Category	Number of Students	Percentage of New Students*
Financial Resources to Pay for C	college this Y	ear:
Sufficient Funds in Savings	17	27
Financial Aid Required	26	41
In-School Employment	38	60
Up to 15 Hours per Week	14	22
16 to 25 Hours per Week	20	32
Over 25 Hours per Week	4	6
Other Resources	18	29
I Do Not Know How I Will Pay for This Year	6	10
Do Parents or Spouse Approve of	Attendance at	PBTS?:
Yes	57	90
No	2	3
Maybe	1	2
One Does, One Does Not	1	2
I Do Not Know	2	3

<sup>\*</sup>Percentages rounded to the nearest integer; total may not equal 100.

New students were asked to predict their overall GPA for the first semester, their likelihood of having a semester GPA below 2.0, and their likelihood of dropping out of school before completing their program. Forty-four students predicted that their semester GPA would be 3.0 or above.



No one predicted a semester GPA below 2.0; however, one student claimed that a semester GPA below 2.0 was "probable." No one indicated that the likelihood of their dropping out of chool was either "probable" or expected." Student predictions about performance and persistence are given in Table 11.

Since advising assignments are made on the basis of the student's academic program, a demographic comparison of the

Table 11

New Student Predictions About Their Own First Semester

GPA and Persistence to Completion

of Their Program

Perception Category	Number of Students	Percentage of New Students
Prediction of First Semester (	GPA:	
3.5 to 4.0 (A or A-)	8	13
3.0 to 3.4 (B or B+)	36	57
2.5 to 2.9 (B-)	13	21
2.0 to 2.4 (C or C+)	6	10
1.5 to 1.9 (D+ or C-)	0	0
1.0 to 1.4 (D)	0	0
Below 1.0 (D- or F)	0	0
Likelihood of Semester GPA Fa.	lling Below 2.0	(C average):
Very Unlikely	37	59
Possible, but Unlikely	25	40
Probable	1	2
Expected	0	0
Likelihood of Dropping Out of Permanently before Completing	School Either 7	Cemporarily or
Very Unlikely	58	92
Possible, but Unlikely	5	8
Probable	0	0
Expected	0	0

<sup>\*</sup>Percentages rounded to the nearest integer; total may not equal 100.



various programs was developed. Mean entrance and placement test scores, high school/college GPAs, high school ranks, and student ages were compared for students in the various programs. In addition the percentage distribution of students from each program in the following categories was calculated: academic probation and remedial English status, type of high school and high school program, prior college, sex and marital status, and financial resources for college. These data are given in Table 12. The comparisons by program are supplemented by comparisons by sex, type of high school, age category, and marital status in Appendix F.

Thirty percent of three-year students were placed on academic probation, and seventeen percent of one-year students were placed on probation. Over fifty percent of missions, youth/church ministries, and women's ministries majors were on academic probation, compared to less than twenty-five percent of music majors and one-year students. Although only sixteen percent of all students were required to take remedial English, forty-four percent of the missions majors and forty-three percent of the youth/church ministries majors were scheduled for remedial English.

None of the music or special/undecided students were required to take remedial English.

Over half of the students in every program except music had attended public school sometime during their four years of high school. In contrast, no more than half of those students in any program except music had attended a



Table 12

Comparison of New Student Demographic, Academic, and Personal Factors by Program

Demographic Category	All Students		Pastoral	Missions	Youth/ Church Min.	Music	Women's Lin.	Special/ Undecided
Number of Students	63	23	11	9	7	5	4	4
Academic Probation	37%	17%	36%	56%	57%	20%	75%	50%
Remedial English	16%	N/A¹	18%	44%	43%	0%	25%	0%
Type of High School Attended:2								
Public	65%	57%	73%	67%	86%	40%	100%	50%
Christian	38%	43%	36%	22%	14%	80%	25%	50%
Nontraditional <sup>o</sup>	24%	22%	36%	22%	0%	40%	50%	0%
College Prepatory Program in H.S.	37%	48%	27%	11%	43%	80%	25%	0%
Prior College Attendance	22%	26%	27%	0%	29%	20%	25%	25%
Male	52%	48%	100%	44%	86%	0%	0%	25%
Married/Single Parent	13%	9%	27%	0%	14%	0%	25%	25%
Financial Resources for College:								
Savings	49%	57%	55%	33%	29%	60%	50%	50%
Financial Aid	41%	26%	45%	78%	43%	40%	75%	<b>0</b> %
In-School Work	60%	61%	45%	78%	57%	40%	75%	75%
Do Not Know	10%	13%	9%	11%	0%	20%	0%	0%

(Continued)

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Table 12 (Cont.)

Demographic Category	All Students	One-Year Program	Pastoral	Missions	Youth/ Church Min.	Music	Women's Min.	Special/ Undecided
Mean Age	21.6	21.1	25.3	18.2	22.6	18.0	24.5	21.0
Mean H.S./Prior College GPA	2.6	2.7	2.7	2.3	2.3	3.6	2.3	2.0
Mean High School Rank	43.8	46.6	32.8	49.8	39.6	60.0	49.0	38.0
Mean ACT/SAT Equivalent4	16.4	17.3	17.1	15.4	15.2	18.8	13.0	15.3
Mean Bible Score	73.6	70.7	90.3	61.9	74.3	78.4	70.5	66.3
Mean Reading Comprehension Score	69.6	72.9	69.4	65.6	71.2	68.6	59.5	75.7
Mean Reading Speed Score	208.1	225.4	212.1	167.8	200.4	207.6	187.8	261.0

¹N/A - Not applicable. One-year students are not required to take English.



<sup>&</sup>lt;sup>2</sup>Multiple responses possible.

<sup>\*</sup>Home schooling, programmed/independent approach, Graduation Equivalency Diploma

<sup>\*</sup>SAT/ACT equivalents: 470=5, 480-90=6, 500-10=7, 520=8, 530-50=9, 560-70=10, 580-90=11, 600-20=12, 630-60=13, 670-90=14, 700-10=15, 720-40=16, 750-70=17, 780-800=18, 810-30=19, 840-60=20, 870-900=21, 910-30=22, 940-70=23, 980-1010=24, 1020-50=25, 1060-90=26, 1100-40=27.

Christian or private high school. Five students in the one-year program and four students in the pastoral major received programmed/independent study, home schooling, or GEDs in their high school education. Two students in each of the missions, music, and women's ministries programs had the nontraditional high school backgrounds.

Eighty percent of music majors were in college prepatory programs in high school; however, less than half the students in all other PBTS programs took college prepatory courses. Only eleven percent of missions majors and none of the special/undecided students had college prepatory programs in high school. less than thirty percent of the students in any program had previously attended college.

All of the new students in the pastoral program were men, and all of those in the music and women's ministries programs were women; however, the pastoral and women's ministries programs are gender-specific because of the theological position of the school. Eighty-six percent of youth/church ministries majors were men. Other programs were more diversified. Twenty percent of pastoral majors were married. In contrast, only nine percent of one-year students were either married or single parents. None of the missions and music students were either married or single parents.

Over half of the one-year, pastoral, and music students had sufficient funds in savings to pay for their first year of college. Seventy-five percent of women's ministries and



seventy-eight percent of missions majors were relying on financial aid. Less than half of the students in other programs were counting on financial aid to pay for school. At least half of the students in five of the seven programs planned to work while in school—seventy-five percent or more of the missions, women's ministries, and special/undecided students. Twenty percent of music students said that they did not know how they would pay for college. Nine to thirteen percent of students in the one-year, pastoral, and missions programs were also uncertain about their financial resources for college.

The mean age of pastoral majors at 25.3 years was the highest among the various programs. Missions and music students averaged 18.0 and 18.2 years of age, respectively. Other groups ranged between 21.1 and 24.5 years of age.

High school grades were best for music majors, who had a mean GPA of 3.6. The averages for other programs ranged between 2.0 and 2.7. Similarly, the mean ACT composite score (or SAT equivalent) was highest for music majors at 18.8. Means for other programs ranged between 13.0 and 17.3.

As might be expected of future preachers, pastoral majors had the highest mean score on the Bible examination (90.3). Music majors had a high score (78.4), and missions majors had the lowest score of all the program groups (61.9). Mean reading comprehension scores ranged from 59.5 for women's ministries majors to 75.7 for special/undecided



students. Reading speed scores were similar with the mean for women's ministries majors at 187.8 words per minute, and 261.0 words per minute for special/undecided student students.

DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

# Discussion

Eight demographic and personal factors were found to be representative of over half of the new student population at Four characteristics were found to be representative of over half, but less than three-quarters of the new student population at PBTS: male, between eighteen and nineteen years of age, out of high school or a previous college program for less than one year, and a resident of New York state. Three factors were found to be characteristic of over seventy-five percent of the population. These were single (non-parent) students, whites, dormitory residents, and students whose parents who never attended PBTS. Only five percent of new students were members of racial or ethnic minorities, and no international students were among the new students. In addition, nearly half of the new students came from homes where the parents had never attended college, and nearly half came from rural communities with a population under 2,500. Less than onesixth of the students came from outside Pennsylvania or New York. Rural New York and Pennsylvania is an accurate description of the region within a 100-mile radius of PBTS.



Since the percentage of the new student population at PBTS under eighteen or over twenty-two is small, the academic problems discussed by Lavin et al. (1983), Winston et al. (1984), Harris and Hansson (1986), and Metzner and Pean (1987) regarding students outside the traditional college age may be limited to a few students at PBTS. In contrast, the academic struggles pointed out by Winston (1984) and Martin and Brown (1986) for firstet al generation college students may be problems experienced by many new students at PBTS, since over half of the new students are first-generation college students. As Dodge (1989), Lewis et al. (1985), Pounds (1986), and others have indicated for other institutions, the small minority contingency at PBTS may need particular adviser attention to remain in school and perform well.

Over one-third of new students at PBTS enrolled in the non-professional, one-year program. An additional seven percent of the population did not commit themselves to a particular program or major. As indicated by Ramist and Arbeiter (1986), Solmon and LaPorte (1986), Noel et al. (1985), and Kroll (1989), these students may experience lower academic performance and greater attrition than their peers. Likewise, almost one-fourth of the new students applied to PBTS less than three months before the start of the semester. As pointed out by Chatman (1986), these student may particularly be insecure about their decision to attend college and their ability to perform well in college.



Over one-third of new students were officially placed on academic probation. Although this proportion is fairly high, it may be an underestimate of those in risk of experiencing a low GPA or withdrawing from school early. As emphasized by Kalna (1986), sixty percent may be a more realistic estimate.

New students at PBTS received relatively low entrance and placement test scores. Mean ACT and SAT scores at PBTS (15.4 and 815.6) were well below the 1988-89 national averages of 18.6 and 903 reported by Dodge (1989). Particularly notable was the fact that the majority of scores were in the bottom half of the range of scores of new students at PBTS for overall test scores as well as most of the subscores. Nationwide percentile rankings for new students at PBTS were worse, with the number of scores in the bottom quartile consistently being the largest distribution of the four quartiles for all of entrance and placement test scores. A substantial number of new students may experience the academic problems associated with low entrance and placement test scores that were reported by Nettles, Thoeny, and Gosman (1986), Harris (1987), and Thornell and Jones (1986).

High school backgrounds were also diverse. Over half of the new students had attended a public school sometime during their four years of high school, and over one-third had attended a Christian or private high school. One-fourth of the students had received instruction through an



independent study/programmed approach or through home schooling. An additional five percent received a GED.

If Sandusky's (1987) finding that GED holders experience lower college GPAs is true for students at PBTS, this small contingency could require special adviser intervention.

As indicated by Nettles, Thoeny, and Gosman (1986), students who attended a private high school may experience some advantage over their peers in college. Likewise, the thirty-seven percent of students who took a college prepatory program in high school may have a definite advantage, based on the conclusions of Willingham and Morris (1986) and MLSSC (1987).

High school grades were not impressive for many of the new students entering PBTS. Thirty students had high school GPAs below 2.5, and twenty-six were in the bottom half of their graduating class. The number of years in core courses was more promising, with a four-year median for English and social studies, and three years for mathematics. Mean and median GPAs by subject were in the 2.2 to 2.7 range; however, three to ten students were in the 0.5 to 1.3 GPA range, depending on subject. High school GPA and number of core courses were cited by several sources in the literature as viable predictors of college performance and persistence.

Over three-quarters of new students participated in extracurricular activities in high school, but only seventy-one percent planned to participate in activities in college.

Nearly half projected that they would participate in only



one activity area in college. There may be some cause for concern over the twenty-nine percent who had no plans to participate in college activities, since this may indicate a limited social interaction with college life. The lack of participation may be compounded in some cases by off-campus residency. As Kalna, (1986), Tinto (1988), Moores and Klas (1989), and others have indicated, lack of social bond to the academic community can have averse effects on persistence.

Slightly more than one quarter of the new students had enough money in savings to pay for their first year of college. Sixty percent planned to work while in school to pay for college costs. This percentage is considerably higher than the forty-seven percent figure for working college students nationwide, reported by the U.S. Labor Department ("Notebook," 1989). Since Winston et al. (1984), MLSSC (1987), and Cherne et al. (1985) find correlations between working while in school and poor performance and attrition, the need for adviser assistance may be high for many of these students.

Over forty percent of new students planned to rely on financial aid. The threat of withdrawal for students with academic difficulties may be compounded by the reliance on financial aid, since any PBTS student with a GPA below 2.0 must have a higher GPA each successive semester or federal aid will be cut off. Of greatest concern to advisers may be the ten percent who said that they did not know how they



were going to pay for college. These students may be at the greatest risk of withdrawing, regardless of academic performance.

A lack of moral support may be a greater detriment to performance and persistence than limited finances for some students. Fortunately, nine out of ten new students claimed that their parents or spouse approved of their decision to attend PBTS. For the ten percent who did not have this vote of confidence, academic difficulties and pressures from home may be overwhelming.

Only eight percent of the new students believed that their likelihood of dropping out of school, either temporarily or permanently, before completing their program was even "possible, but unlikely." All others claimed it was "very unlikely." Students were not so confident about their GPA; forty percent stated that their likelihood of receiving a first semester GPA below 2.0 was "possible, but unlikely."

An interesting discrepancy in student predictions was that although no one predicted their semester GPA to be below the 2.0 to 2.4 range, twenty-five students said that a semester GPA below 2.0 was "possible, but unlikely," and one student said that a semester GPA below 2.0 was "probable." Kelly and White (1986) find that students tend to inflate their grade pe. "ptions. This may account for the difference in predictions in this study; however, the difference may also be the result of student insecurity in predicting



their future college performance. They may honestly not know what to expect.

Academic, demographic, and personal differences were examined by program. While thirty-seven percent of all new students were placed on academic probation, over half of the students categorized as missions, youth/church ministries, women's ministries, and special student/undecided were placed on academic probation. The proportion of students in the missions and youth/church ministries programs required to take remedial English was nearly three times the proportion of all new students required to take remedial English.

The percentage of students having taken a college prepatory program in high school was highest for new music students (80%), and well above the overall percentage for students in the one-year and youth/church ministries programs. In contrast, only eleven percent of the missions majors and none of the students classified as special or undecided had taken a college prepatory program; however, one of the special students had previously attended college.

Student financial resources for college were fairly similar from program to program. A smaller percentage of missions and youth/church ministries majors had sufficient funds in savings to pay for their first year of college than did students in the other programs. Three-quarters of the missions and women's ministries students were counting on financial aid to pay for college, and students in the same proportions from these two programs planned to work while in



school. While one-fourth of the one-year students were counting on financial aid, over sixty percent said that they planned to work while in school. Students who did not know how they would pay for the current year of college were distributed among the one-year, pastoral, missions, and music programs.

The mean high school or previous college GPA was substantially higher for students in the music program than for others, a characteristic that is echoed in mean ACT or SAT equivalent scores. While there were small differences in mean high school or previous college GPAs among most programs, ACT/SAT equivalent scores were much lower than the average for students in the missions and youth/church ministries programs, and for special/undecided students. Women's ministries students had the lowest mean ACT/SAT equivalent score. Music students had higher Bible scores than most of their peers, and as might be expected, pastoral majors had the highest mean Bible score--over fifteen points higher than the overall mean and over ten points higher than the second highest group, music students. Missions majors had the lowest Bible scores, and may experience the greatest difficulty with the seventeen required Bible courses in their program.

Reading comprehension and speed scores were similar for all categories, except for two deviations. Women's ministries students scored much lower on both comprehension and speed than their peers. Although missions majors had a



mean comprehension score about halfway between that of women's ministries majors and all students, their mean reading speed score was twenty words per ninute lower than that of students in any other program. Reading problems could create a serious obstacle in mastering subjects at PBTS with extensive reading requirements.

## Implications

Several key factors identified through the new student profile may be helpful to advisers in counseling and directing their advisees. Although the new student population at PBTS has some diverse elements in it, the student body is relatively homogeneous. PBTS students may be characterized as decidedly single, non-parent, white, dormitory residents. Most PBTS new students are also male, between eighteen and nineteen years of age, out of high school or a previous college program for less than one year, residents of New York state, and those attending college without their family's moral support.

Students who do not fit this demographic profile may feel isolated from the college community. Their lack of bond to classmates may cause them to become discouraged and withdraw early. The lack of community integration may also reduce their efforts, and so cause poor academic performance. There may also be outside responsibilities, pressures, and discouragements from family and non-college friends that would inhibit their commitment to their



education. Married students, single parents, minorities, and commuter students may experience the greatest susceptibility to early withdrawal or poor academic performance. Monitoring plans to participate in extracurricular activities may also serve to identify some of students who are in the greatest jeopardy of not acclimating into the college community.

Students in the one-year program and undecided or special students may also be at risk. Their lack of commitment to a professional goal may cause them to frequently question their decision to attend college. Furthermore, the literature emphasizes that undecided students may have academic deficiencies that would make academic performance in college an even greater task. Since one-third of the new students at PBTS enrolled in the one-year program, special assistance may be required for a significant number of students, particularly for advisers with mostly one-year advisees.

The prior academic preparation of new students, as indicated in mean entrance and placement scores and high school GPAs, is lower than national norms. This may produce a great demand for advising services. The problems of acclimating to college and performing work up to college standards may be especially critical for those with scores and GPAs in the lowest quartile of the range. Acclimating to traditional education may also be significant for those few students who were either attended a school that used



programmed techniques exclusively, or those who were home schooled.

The high proportion of students who did not take a college prepatory program in high school may also contribute to the need for special services. These students may experience difficulty competing with their peers who have had advanced courses in high school. Since over sixty percent of the new student population did not take college prepatory courses, deficiencies and academic struggles may be more the norm, rather than the exception. Academic advisers may need to note students who have not taken college prepatory programs, and be ready to provide special assistance and intrusive help to many of these students.

Financial concerns significantly impact college performance and persistence. The sixty percent of new students who plan to work may require some adviser observation to insure that their work plans do not create substantial academic problems. Some of these students may seriously underestimate the amount of time required for out-of-class preparation in college courses. In addition, students with low ACT scores or low high school grades may be particularly susceptible to withdrawal if they are relying on financial aid as their principal means of financial support for college. Since the institution's academic progress policy for probation students mandates upward progress a ery semester or federal aid will be denied, minor academic problems in a particular semester



could become major financial problems. If there are no other resources available, the removal of federal aid could result in immediate withdrawal. These students may require extremely careful monitoring to insure that their circumstances do not bring them to such critical decisions.

Although few in number, the students who do not know how they will pay for college are probably the greatest risk. Without a financial plan of action, they may not be committed to more than a single semester at a time. Because of the religious nature of the institution and its constituency, some students may feel that anticipation of supernatural intervention is acceptable financial planning for college. Some of these students may be relying exclusively on "miracles" to maintain their financial solvency, and are not examining financial options for the future. Consequently, they are perhaps in the greatest danger of dropping out of school without prior indication of that intent, and may require adviser intervention to examine financial alternatives.

This year's new students experience considerable family support for their decision to attend PBTS. That support will certainly be a strong factor in their desire and commitment to academic performance and persistence. However, the few students who do not have that vote of confidence may be easily overlooked. It may be critical to their survival in college that someone provide the element of support that is lacking from their family.



Student predictions of grades and persistence may be considerably inaccurate. Other factors in the profile should be considered by advisers in assessing a student's ability. A student's predicting that dropping out of school is possible may be an indicator of a lack of personal confidence in ability or the decision to attend college. These students may susceptible to withdrawal when difficulties come. They may also have a low self-esteem that may manifest itself in substandard performance, even if their abilities as indicated in other data does not reflect this. The five stulents who indicated that their likelihood of dropping out of school was possible may need special observation and encouragement to do their best.

Since advisees are assigned to advisers based on academic program, the comparative analysis of demographic and academic differences between students enrolling in the various programs may help advisers identify how alert they may need to be in helping students in their discipline in general. Students in missions, youth/church ministries, and women's ministries programs may experience the greatest difficulties in performing at college standards, based on their lower overall scores on entrance and placement tests and prior academic record. These observations are based on very broad statistics, and individual differences will certainly be more important in determining what students are likely to require more help and advise. However, advisers of students in the missions, youth/church ministries, and



women's programs may need to allocate more of their time to advising duties.

## Recommendations

It is recommended that PBTS establish a new student profile as an ongoing project in the retention program of the institution, and that this be included as a budgetary operation. The profile should be maintained as an overall picture of the new student population and serve as a database of demographic, personal, and academic factors that may significantly influence academic performance and persistence of individual students within the new student population.

Each academic adviser should receive a copy of the overall profile, and complete, individual profile data on each of his or her advisees.

To encourage useful interpretation and application of the profile, an annual presentation on academic, personal, and demographic features of new students is recommended. The presentation would insure that academic advisers were well informed about the overall characteristics of their advisees, and had a framework for evaluating and addressing the special needs of advisees who are likely to withdraw from college or experience poor grades. An informal discussion could be included to discuss use of the profile in particular advising situations.

It is recommended that advisers pay particular attention to students who have entrance and placement



examination scores in the bottom quarter of the range for new students, and students who deviate from profile characteristics that are representative of over seventy-five percent of the entering class. Advisers should also pay moderate attention to students whose entrance and placement examination scores are in the third quarter of the range for new students, and students who deviate from profile characteristics that are representative of over half of the entering class. Recommended high and moderate risk factors are included in Table 13.

It is also recommended that the academic record of new student be tracked to determine which demographic, academic, and personal factors are the best predictors of academic performance at PBTS. Correlations between demographic factors and GPAs and persistence rates of current PBTS students would be helpful in selecting priority indicators for intrusive advising and other interventions. Advising time could be more accurately directed to those students with the greatest need for outside help.



### Table 13

# Recommended High and Moderate Risk Factors for New Students

# High Risk Factors

#### Moderate Risk Factors

Student on academic probation.

ACT/SAT score, subscores, or nationwide percentile ranks in bottom quartile.\*\*

Reading examination scores or nationwide percentile ranks in bottom quartile.

Bible examination score or nationwide percentile rank in bottom quartile.

High school or previous college GPA below 1.75.

High school percentile rank in bottom quartile.

Number of years of high school English below 2.5 or number of years of mathematics, social studies, or science below 1.5.

High school GPA in English, mathematics, social studies, or science below 1.5.

No ACT/SAT scores, or reading examination scores on file.

No high school or college GPA, or high school rank on file.

One or both parents or spouse did not support student's decision to attend PBTS.

Member of a racial minority.

Single parent.

Over 30 years of age or over 10 years since last in school.

One-year or special/undecided student.

ACT/SAT score, subscores, or nationwide percentile ranks in the third quartile.

Reading examination scores or nationwide percentile ranks in the third quartile.

Bible examination score or nationwide percentile rank in the third quartile.

High school/previous college GPA between 1.75 and 2.5

High school percentile rank in third quartile.

Number of years of high school English between 2.5 and 3.4 or number of years of mathematics, social studies, or science between 1.5 and 2.4.

High school GPA in English, mathematics, social studies, or science between 1.5 and 2.25.

No college prepatory program in high school.

High school graduating class had less than ten students.

Student is uncertain about parents' or spouse's support of the decision to attend PBTS.

Student plans to live off-campus.

Parent with three or more children.

Under 18 or between 20 and 30 years of age, or between 6 and 10 years since last in school.

(Continued)



## Table 13 (Cont.)

## High Risk Factors

## Moderate Risk Factors

- Highest level of parental education is some grade/high school.
- Student plans to work over 25 hours per week or does not know how to pay for this year of college.
- Student is relying on financial aid to pay for school, and has a high school GPA below 2.0 or an ACT composite score below 15.
- Student did not participate in extracurricular activities in high school and does not plan to participate in college.
- Student predicts that his first semester GPA at PBTS will be below 2.0.
- Student claims that the likelihood of a first semester GPA below 2.0 is "probab." or "expected."
- Student claims that the likelihood of dropping out of school is "probable" or "expected."

- Highest level of parental education is high school graduate.
- Student plans to work between 16 and 25 hours per week while in school to pay for college.
- Student is relying on financial aid to pay for school, but has a high school GPA of 2.0 or above or ACT composite score of 15 or above.
- Student did participate in extracurricular activities in high school, but does not plan to participate in college.
- Student predicts that his first semester GPA will be between 2.0 and 2.4.
- Student claims that the likelihood 'f a first semester GPA below 2.0 is "possible, but unlikely."
- Student claims that the likelihood of dropping out of school is "possible, but unlikely."
- High school background includes programmed or independent study, home schooling, or Graduation Equivalency Diploma.



<sup>&</sup>quot;Quartiles for scores refer to the respective quarter of the range of scores for new students at PBTS; quartiles for percentile ranks refer to the respective quarter in the nationwide population taking the examination or the respective quarter of the student's high school graduating class.

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# APPENDIX A NEW STUDENT QUESTIONNAIRE



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#### NEW STUDENT QUESTIONNAIRE

Name Age	Sex Home zip code
single married If parent, number	of children: under 6 yrs
Where do you plan to live during  dormitory on-campus apartment	the school year? parent's home off-campus apartment/home
What is your academic classificated a large of the second academic classificated and a large of the second academic classificated a large of the second academic classificated at large of the second academic	l student
If in the 3 year program, what is pastoral missions women's ministries undecided	
Have you attended college before?  If yes, how far did you complet  less than 1 year  bachelor's degree some graduate	e?
What is the size of your home com rural (pop. under 2,500) small of urban (over 25,000)	
How many people were in your high under 10 10 to 50 51 to 100	
What type of high school(s) did y through 12? (check all that appl  public school Christian academytraditional class Christian academyprogrammed/indepen (e.g., Accelerated Christian Education Home schooling Graduation Equivalency Diploma (GED)	room ndent study
What type of high school program  college preparation business seneral program not sure	did you take?  U vocational/skilled trades
(over)	



### New Student Questionnaire (Cont.)

What activities did you particulate (check all that apply)	cipate in during high school?
athletic teams music groups	☐ debate/drama ☐ student government
What is the highest level of parents?	education attained by your
some grade school/high school some college bachelor's degree doctorate	☐ high school graduate ☐ associate's degree ☐ master's degree
Did one of your parents atten	d PBTS? Did both?
Do your parents (spouse if ma attend PBTS?	rried) support your decision to
☐ yes ☐ no ☐ maybe ☐ I	don't know
What financial resources will school year? (check all that	
sufficient funds in savings for financial aid required for atten in-school employment up to 15 ho in-school employment of 16 to 25 in-school employment over 25 hou other resources  I don't know how I will pay for	dance urs per week hours per week rs per week
What college activities do you year? (check all that apply	
athletic teams musical teams	☐ drama team ☐ student government
What do you predict your over for the semester?	all grade point average to be
☐ 3.5 to 4.0 (A or A-) ☐ 3.0 to ☐ 2.0 to 2.4 (C or C+) ☐ 1.5 to ☐ below 1.0 (D- or F)	3.4 (B or B+)
What is the likelihood of you semester falling below 2.0 (C	r grade poid average for this average)?
very unlikely possible, but	unlikely probable expected
temporarily or permanently be	r dropping out of school either fore completing your program?
LI very unlikely LI possible, but	unlikely probable expected



# APPENDIX B ACADEMIC RECORD WORKSHEET



#### ACADEMIC RECORD WORKSHEET

Name		<del></del>	Applica	ation da	te
Year when last in hi	igh sch	ool or co	llege:	•	
Hig	h Schoc	ol Academ:	ic Reco	ord	
GPA: on a					۵.
Rank: out o					
High school graduate	ed:	public		_ Christ	ian/private
High schools attended	ed:	public		Christ	ian/private
New York Regents dir	loma?	yes		_ no	•
H.S. Subject Ye	ears in	H.S. Gr	ade Av	e. GPA	on 4.0 scale
English		_			
Mathematics		_			
Social Studies Natural Science					
Foreign Language		_			<del></del>
Lordry. Language		_			
P	revious	College	Credit		
				-	
College Name		Degr		Credit Hours	GPA
				Hours	
				-	
Tin ****				_	
Entrance a	nd Plac	ement Exa	aminati	on Score	<u>es</u>
ACT/SAT Scores	ACT	Natio		SAT	National
Composite/Combined	Score	Percen	tile	Score	Percentile
English/Verbal				***************************************	
Mathematics	<del></del>	<del></del>	<del></del>	<del></del>	
Social Studies		<del>*************************************</del>	W-2-110		***************************************
Natural Science			<del>-</del>		
Placement tests	Score	Natio	nal		
	SCOTE	Percen	·		
Bible		-			
Reading Comprehen.		<del></del>	14		
Reading Speed	***************************************		<b></b>		
Academic Probation?		yes	no		
Remedial English?	to describe to the same of	yes	no		



## APPENDIX C PERCENTAGE AND LETTER GRADE TO QUALITY POINT CONVERSION SCALE



# PERCENTAGE AND LETTER GRADE TO QUALITY POINT CONVERSION TABLE

Percentage Grade	Quality Points	<u>Letter Grade</u>
96+	4.0	A
95	3.9	
94	3.8	
93	3.7	A-
92	3.6	
91	3.4	
90	3.3	B+
89	3.2	
88	3.1	
87	3.0	В
86	2.9	
85	2.8	
84	2.7	B-
83	2.6	
82	2.4	
81	2.3	C+
80	2.2	
79	2.1	
78	2.0	C
77	1.9	
76	1.8	
75	1.7	C-
74	1.6	
73	1.4	
72	1.3	D+
71	1.2	
70	1.1	
69	1.0	D
68	, 9	
67	.9 .8	
66	. 7	D-
65	. 6	<del></del>
64-	0	F



# APPENDIX D SAT COMBINED SCORE TO ACT COMPOSITE SCORE CONVERSION SCALE



## SAT COMBINED SCORE TO ACT COMPOSITE SCORE CONVERSION TABLE

ACT Composite Score	SAT Combined Score
5	470
6	430-490
7	500-510
8	520
9	530-550
10	560-570
11	580-590
12	600-620
13	630-66C
14	670-690
15	700-710
16	720-740
17	750-770
18	780-800
19	810-830
20	840-860
21	870-900
22	910-930
23	940-970
24	980-1010
25	1020-1050
26	1060-1090
27	1100-1140

Source: American College Testing Program



# APPENDIX E PROFILE SUMMARY OF NOMINAL AND INTERVAL DATA ON NEW STUDENTS



### PROFILE SUMMARY OF NOMINAL DATA ON NEW STUDENTS

Analysis Category	Number of Students	Percentage of New Students <sup>1</sup>
Academic Program:		
One-year	23	37
Three-year	37	59
Pastoral	11	17
Missions	9	14
Youth	5	8
Music	5	8
Women's Ministries	4	6
Church Ministries	2	3
Undecided	1	2
Special Student	3	5
Academic Status:		
Regular Enrollment	40	63
Academic Probation	23	37
Remedial English Required?	10	16
Sex:		
Men	33	52
Women	30	48
Marital/Parental Status:		
Single, No Children	55	87
Single Parent	2	3
Married, No Children	3	5
Married, One Child	1	2
Married, Four Children	2	3
Minority Status:		
White/Caucasian	60	95
Black/Afro-American	3	5
In-School Residency:		
Dormitory resident	48	76
Parent's Home	5	8
On-Campus Apartment	5	8
Off-Campus Apartment/Home	5	8

(Continued)

### PROFILE SUMMARY OF NOMINAL DATA (Cont.)

Analysis Category	Number of Students	
Size of Home Community:		= NN to a second
Rural (under 2,500)	29	46
Small Town (2,500-25,000)	22	35
Urban (over 25,000)	12	19
Home State/Region:		
New York	42	67
Pennsylvania	13	21
New England	4	6
Midwest	3	5
Southwest	1	2
Type of High School Attended:		
Public	41	65
Christian/Private	24	38
Traditional Classroom	13	21
Independent/Programmed	11	17
Home Schooling	4	6
Graduation Equiv. Diploma	3	5
Size of High School Graduating C	lass:	
Under 10	12	19
10 to 50	13	21
51 to 100	13	21
101 to 300	15	24
Over 300	10	16
Type of High School Program Take	n:	
New York Regents Diploma*	8	13
College Preparation	23	37
General Program	21	33
Business	7	11
Vocational/Skilled Trades	10	16
Not Sure	2	3
Prior College Attendance:		
1 Term (under 16 credits)	2	3
1 Year (16-45 credits)	4	6
2 Years (46 to 75 credits)	3	. 5
3 Years (76 to 105 credits)	1	2
4 Years (over 105 credits)	4	6

(Continued)



#### PROFILE SUMMARY OF NOMINAL DATA (Cont.)

Analysis Category		Percentage of New Students <sup>1</sup>
Degrees Earned:		
Associate of Science	2	3
Bachelor of Arts	2	3
Bachelor of Science	2	3
Financial Resources to Pay for Co	ollege this Y	ear:3
Sufficient Funds in Savings	17	27
Financial Aid Required	26	41
In-School Employment	38	60
Up to 15 Hours per Week		22
16 to 25 Hours per Week		32
Over 25 Hours per Week		6
Other Resources	18	29
I Do Not Know	6	10
Do Parents or Spouse Approve of	Attendance at	PBTS?:
Yes	57	90
No	2	3
Maybe	1	2
One Does, One Does Not	1	2
I Do Not Know	2	3
Highest Level of Parent's Educat.	ion:	
Some Grade/High School	3	5
High School Graduate	26	41
Some College	17	27
Associate Degree	6	10
Bachelor's Degree	7	11
Master's Degree	3	5
Doctorate Degree	1	2
Parental Alumni Status:		
Parents Never Attended PBTS	56	89
One Parent Attended PBTS	5	8
Both Parents Attended PBTS	2	3
High School Participation in Act:	ivities:3	
Athletic Teams	39	62
Music Groups	28	44
Debate or Drama	15	24
Student Government	10	16
~ a medicate . At A A T THIRETTE	10	10

(Continued)



#### PROFILE SUMMARY OF NOMINAL DATA (Cont.)

Analysis Category		Percentage of New Students		
Plans to Participate in Colleg	ge Activities:3			
Athletic Teams	27	43		
Music Groups	19	30		
Debate or Drama	11	17		
Student Government	4	6		
Prediction of First Semester 0	SPA:			
3.5 to 4.0 (A or A-)	8	13		
3.0 to 3.4 (B or B+)	36	57		
2.5 to 2.9 (B-)	13	21		
2.0 to 2.4 (C or C+)	6	10		
1.5 to 1.9 (D+ or C-)	0	0		
1.0 to 1.4 (D)	0	0		
Below 1.0 (D- or F)	0	0		
Likelihood of Semester GPA Fal	lling Below 2.0	(C average):		
Very Unlikely	37	59		
Possible, but Unlikely	25	40		
Probable	1	2		
Expected	0	0		
Likelihood of Dropping Out of Permanently before Completing	School Either T Program:	emporarily or		
Very Unlikely	58	92		
Possible, but Unlikely	5	8		
Probable	0	0		
Expected	0	Ō		

Percentages rounded to the nearest integer; total may not equal 100. N=63.



<sup>&</sup>lt;sup>2</sup>Students in remedial English are also on academic probation. One-year students are not required to take English.

<sup>&</sup>lt;sup>a</sup>Multiple responses possible.

<sup>\*</sup>Students with Regents Diplomas are also included in the college preparation category.

#### PROFILE SUMMARY OF INTERVAL DATA ON NEW STUDENTS

Analysis Category	N=	Mean	Std.	Median	Range	Quar	tile D	)istri	bution	Quartile Ranges				
			Dev.			Top	2nd %	3rd ⅓	Bottom %	Top 为	2nd ¼	3rd ४	Bottom	
AOM 0 /017 P 1 3 14							<del></del>		<u>-</u>			<del></del>		
ACT Score/SAT Equivalent <sup>2</sup> ACT Scores:	49	16.4	5.7	16	5-27	8	18	18	5	2330	16-22	9-15	1-8	
Composite	26	15.4	5. <b>3</b>	15.5	7-27	3	10	9	4	23-30	16-22	9-15	1-8	
English	26	16.8	5.6	17.5	6-25	5	10	8	3	23-30	16-22	9-15	1-8	
Mathematics	26	11.5	6.7	11.5	1-28	1	6	11	8	23-30	16-23	9-15	1-8	
Social Studies	26	14.7	7.2	13	4-30	5	4	12	5	23-30	16-22	9- 15	18	
Science	26	18.4	5.4	18	4-29	4	16	5	1	23-30	16-22	9-15	1-8	
SAT Scores:														
Combined	25	815.6	191.6	790	470-1120	7	5	8	5	930-1120	730-920	530-720	330-520	
Verbal	25	410.8	109.7	390	240-620	5	4	13	3	530-630	420-520	310-410	200-300	
Mathematics	25	405.2	102.6	390	220-610	G	8	9	5	530-630	420-520	310-410	200-30	
Nationwide Percentile Ranks:														
ACT Composite	26	34.3	24.9	31.5	2-93	2	3	10	11	76-99	51-75	26-50	1-25	
ACT English	26	43.8	29.6	43	2-92	5	4	6	11	76-99	51-75	26-50	1-25	
ACT Mathematics	26	29.9	22.2	26.5	1-93	1	4	8	13	76-99	51-75	26-50	1-25	
ACT Social Studies	26	39.0	28.8	31	2-97	5	4	6	11	76-99	51-75	26-50	1-25	
ACT Science	26	37.2	23.4	3 <b>3</b>	1-86	3	3	9	11	76-99	51-75	26-50	1-25	
SAT Verbal	18	46.6	31.0	31	11-94	6	O	6	6	76-99	51-75	26-50	1-25	
SAT Mathematics	18	30.1	21.5	21.5	1-66	0	4	3	11	76-99	51-75	26-50	1-25	
Bible Examination:														
Score	63	73.6	26.9	68	19-138	6	21	25	11	110140	79-109	48-78	17 47	
Percentile Rank	63	49.2	30.1	45	1-99	15	15	13	20	76-99	51-75	26-50	1-25	
Reading Examination:														
Comprehension Score	5 <b>1</b>	69.6	13.1	72	30-88	25	15	8	3	74-88	59-73	4458	29-43	
Speed Score	51	208.1	78.3	198	75-392	5	13	18	15	314-393	234-313	154-233	74-15	
Comprehension Percentile Rank	51	41.8	27.2	34	4-99	7	14	13	17	76-99	51-75	26-50	. 25	
Speed Percentile Rank	51	38.8	30.8	33	1-96	13	5	11	22	76-99	51-75	26-50	1-25	
Previous Academic Record:														
Highest of H.S. or College GPA	50	2.6	. 7	2.4	1.2-4.0	4	18	23	5	3.8-4.0	2.6-3.7	1.8-2.5	1.0-1.	
High School GPA	46	2.4	. 7	2.2	1.2~4.0	3	13	23	7	3.8-4.0	2.6-3.7	1.8-2.5	1.0-1.	
High School Percentile Rank	41	43.8	26.5	40	2-97	8	7	13	13	76-99	51.75	26-50	1-25	
College GPA	10	3.0	. 4	2.9	2.3-3.8	1	7	2	0	3.8-4.0	2.6-3.7	1.8-2.5	1.0-1.	
College Credits Earned	10	64.8	52.2	48	7-140	5	i	1	3	108-141	74-107	42-73	6-39	

Continued

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#### PROFILE SUMMARY OF INTERVAL DATA (Cont.)

Analysis Category	N≖	N≖ Mean Std. Median Range					Quartile Distribution				Quartile Runges			
			Dev.	'•		Top	2nd	3rd ¼	Bottom %	Top	2nd 1/4	3rd %	Bottom %	
Years in High School Subjects:			· · · · · · · · · · · · · · · · · · ·											
English	55	3.9	. 4	4	2-4	50	4	1	0	3.5-4.0	2.5-3.0	1.5-2.0	.5-1.0	
Mathematics	55	2.9	. 8	3	1-4	14	25	14	2	3.5-4.0		1.5-2.0	.5-1.0	
Social Studies	55	3.6	, 5	4	3-4	33	22	0	0	3.5-4.0		1.5-2.0	.5-1.0	
Science	55	2.5	. 8	2	1~4	7	17	28	3	3.5-4.0	2.5-3.0		.5-1.0	
Foreign Language	29	1.9	, 9	2	.5-4	1	7	9	12		2.5-3.0		.5-1.0	
Grades in High School Subjects:														
English	55	2.6	. 8	2.4	.7-4.0	20	14	18	3	3.2-4 0	2.3-3.1	1 4-2 2	.5-1.3	
Mathematics	55	2.4	. 8	2.3	.9-4.0	8	23	16	8	3,2-4.0	2.3-3.1	1.4-2.2	.5-1.3	
Social Studies	55	2.5	. 9	2.2	.9-4.0	18	8	21	8	3.2-4.0	2.3-3.1	1.4-2.2	.5-1.3	
Science	55	2.4	. 9	2.7	4.0	13	17	15	10		2.3-3.1	1.4-2.2	5-1.3	
Poreign Language	29	2.5	1.0	2.5	.6-4.0	10	7	6	6		2.3-3.1		.5-1.3	
Years Since Last in School	63	3.0	5.1	. 2	. 2-22	6	4	15	38	11-22	6-10	1-5	.24	
Age at Matriculation	63	21.6	6.3	19	16-42	140	8	33	8	23-42	20-22	18-19	16-17	
Application Date (number of days prior to fall term)	63	159	84.5	165	11-331	15	28	11	8	271-360	181-270	91-180	1-90	
Areas of Participation in Extracurr	icular .	Activitie	o g											
Number of Areas in High School	63	1.5	1.2	1	0-4	12	16	20	15	3-4	2	1	0	
Number of Areas in College	63	1.0	.8	1	0-3	2	12	31	18	3-4	2	1	0	

<sup>\*</sup>SAT/ACT equivalents: 4'70=5, 480-90=6, 500-10=7, 520=8, 530-50=9, 560-70=10, 580-90=11, 600-20=12, 630-60=13, 670-90=14, 700-10=15, 720-40=16, 750-70=17, 780-800=18, 810-30=19, 840-60=20, 870-900=21, 910-30=22, 940-70=23, 980-1010=24, 1020-50=25, 1060-90=26, 1100-40=27.



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<sup>\*</sup>Distributions for years since last in school and age at matriculation do not represent true quartiles.

There were 7 students between 23 and 30 years of age, and 7 students between 31 and 42 years of age.

<sup>\*</sup>Students entering college two months after graduating from high school (.2 years is equivalent to the time interval between the typical June graduation and fall registration for college).

#### APPENDIX F

COMPARISON OF NEW STUDEN! DEMOGRAPHIC, ACADEMIC, AND PERSONAL FACTORS BY PROGRAM, SEX, MARITAL STATUS, AGE, AND TYPE OF HIGH SCHOOL ATTENDED



### COMPARISON OF NEW STUDENT DEMOGRAPHIC, ACADEMIC, AND PERSONAL FACTORS BY PROGRAM

Demographic Category	All Students	One-Year Program	Pastoral	Missions C	Youth/ hurch Ministrie	Music s	Women's Ministries	Special/ Undecide
Number of Students	63	23	11	9	7	5	4	4
Academic Probation	23 (37) 1	4 (17)	4 (36)	5 (56)	4 (57)	1 (20)	3 (75)	2 (50)
Remedial English	10 (16)	N/Aª	2 (18)	4 (44)	3 (43)	0 (0)	1 (25)	0 (0)
Type of High School Attended:								
Public	41 (65)	13 (57)	8 (73)	6 (67)	6 (86)	2 (40)	4 (100)	2 (50)
Christian	24 (38)	10 (43)	4 (36)	2 (22)	1 (14)	4 (80)	1 (25)	2 (50)
Nont. aditional 4	15 (24)	5 (22)	4 (36)	2 (22)	0 (0)	2 (40)	2 (50)	0 (0)
College Prepatory Program in H.S.	23 (37)	11 (48)	3 (27)	1 (11)	3 (43)	4 (80)	1 (25)	0 (0)
Prior College Attendance	14 (22)	6 (26)	3 (27)	0 (0)	2 (29)	1 (20)	1 (25)	1 (25)
dale	33 (52)	11 (48)	11 (100)	4 (44)	6 (86)	0 (0)	0 (0) <sup>8</sup>	1 (25)
Married/Single Parent	8 (13)	2 (9)	3 (27)	0 (0)	1 (14)	0 (0)	1 (25)	1 (25)
Pinancial Resources for College:								
Savings	31 (49)	13 (57)	6 (55)	3 (33)	2 (29)	3 (60)	2 (50)	2 (50)
Financial Aid	26 (41)	6 (26)	5 (45)	7 (78)	3 (43)	2 (40)	3 (75)	0 (0)
In-School Work	38 (60)	14 (61)	5 (45)	7 (78)	4 (57)	2 (40)	3 (75)	3 (75)
Do Not Know	6 (10)	3 (13)	1 (9)	1 (11)	0 (0)	1 (20)	0 (0)	0 (0)
lean Age	21.6	21.1	25.3	18.2	22.6	18.0	24 , 5	21.0
Mean H.S./Prior College GPA	2.6	2.7	2.7	2.3	2.3	3,6	2.3	2.0
Mean High School Rank	43.8	46.6	32.8	49.8	39.6	60.0	49.0	38.0
dean ACT Score/SAT Equivalent	16.4	17.3	17.1	15.4	15.2	18.8	13.0	15.3
dean Bible Score	73,6	70.7	90.3	61.9	74.3	78.4	70.5	66.3
lean Reading Comprehension Score	69.8	72.9	69.4	65.6	71.2	68.6	59.5	75.7
lean Reading Speed Score	208.1	235.4	212.1	167.8	200.4	207.6	187.8	261.0

The number preceding the parentheses indicates the number of students, the number enclosed by parentheses indicates the percentage of students in the category (i.e., column heading).



4

<sup>&</sup>quot;N/A - not applicable. One-year students are not required to take English.

<sup>&</sup>quot;Multiple responses possible.

<sup>\*</sup>Home schooling, programmed/independent approach, Graduation Equivalency Diploma.

<sup>&</sup>quot;The pastoral and women's ministry programs are gender-specific.

### COMPARISON OF NEW STUDENT DEMOGRAPHIC. ACADEMIC, AND PERSONAL FACTORS BY SEX, MARITAL STATUS, AGE, AND TYPE OF HIGH SCHOOL ATTENDED

Demographic Category	Male	Pemale		Married/ ingle Parent	• •	High Schoo Christian	l Attended <sup>a</sup> Nontrad. <sup>a</sup>	Studen Under 18	t's Age at 18-19	Matricul 20-22	lation Over 22
Number of Students	33	30	55	8	41	24	15	8	33	8	14
One-Year Student	11 (33)ª	12 (40)	21 (38)	2 (25)	13 (32)	10 (42)	5 (33)	2 (25)	12 (36)	4 (50)	5 (36)
Three-Year Student	21 (64)	15 (50)	31 (56)	5 (63)	26 (63)	12 (50)	10 (67)	6 (75)	18 (55)	4 (50)	8 (57)
Special Student/Undecided	1 (3)	3 (10)	3 (5)	1 (13)	2 (5)	2 (8)	0 (0)	0 (0)	3 (9)	0 (0)	1 (7)
Academic Probation	10 (30)	13 (43)	21 (38)	2 (25)	17 (41)	7 (29)	5 (33)	2 (25)	14 (42)	3 (38)	4 (29)
Remedial English	6 (18)	4 (13)	10 (18)	0 (0)	9 (22)	1 (4)	0 (0)	u (0)	8 (24)	1 (13)	1 (7)
Type of High School Attended:											
Public	22 (67)	19 (63)	33 (60)	8 (100)	N/A <sup>4</sup>	3 (13)	4 (27)	1 (13)	20 (61)	6 (75)	14 (100
Christian/Private	11 (33)	13 (43)	24 (44)	0 (0)	3 (7)	N/A	11 (73)	6 (75)	16 (48)	2 (25)	0 (0)
Nontraditional <sup>a</sup>	8 (24)	7 (23)	12 (22)	3 (38)	4 (10)	11 (46)	N/A	5 (63)	7 (21)	0 (0)	3 (21)
College Prep. Program in H.S.	11 (33)	12 (40)	22 (40)	1 (13)	16 (39)	9 (38)	2 (13)	2 (25)	14 (42)	4 (50)	3 (21)
Prior College Attendance	10 (30)	4 (13)	9 (16)	5 (63)	13 (32)	2 (8)	1 (7)	0 (0)	1 (3)	5 (63)	8 (57)
Male	N/A	N/A	27 (49)	6 (75)	22 (54)	11 (46)	8 (53)	5 (63)	11 (33)	6 (75)	11 (79)
Married/Single Parent	6 (18)	2 (7)	0 (0)	N/A	8 (20	0 (0)	3 (20)	0 (0)	0 (0)	0 (0)	8 (57)
Financial Resources for College:	1										
Savings	16 (48)	15 (50)	27 (49)	4 (50)	16 (39)	17 (71)	12 (80)	6 (75)	15 (45)	4 (50)	6 (43)
Financial Aid	11 (33)	15 (50)	23 (42)	3 (38)	18 (44)	R (33)	7 (47)	5 (63)	14 (42)	2 (25)	5 (36)
In-School Work	18 (55)	20 (67)	34 (62)	4 (50)	25 (61)	14 (58)	9 (60)	4 (50)	22 (67)	6 (75)	6 (43)
Do Not Know	2 (6)	4 (13)	5 (9)	1 (13)	6 (15)	2 (6)	0 (0)	0 (0)	2 (6)	2 (25)	2 (14)
Mean Age	22.9	20.1	19.9	33.3	23.4	18.2	21."	16.9	18.3	21.3	32.0
Mean H.S./Prior College GPA	2.5	2.6	2.5	2.7	2.5	2.8	3.3	3.1	2.4	2.7	2.6
Mean High School Rank	36.2	54.5	45.3	25.0	41.8	44.1	26.0	53.0	46.6	53.4	18.6
Mean ACT Score/SAT Equivalent	16.5	16.3	16.3	15.0	16.3	16.6	17.5	19.2	16.1	16.5	15.0
Mean Bible Score	77.8	68.9	70.6	94.1	69.1	78.8	92.9	89.4	62.8	74.0	89.7
Mean Reading Comprehen. Score	69.8	69.4	70.2	64.0	65.5	76.4	74.5	78.0	68.6	74.0	63.4
Mean Reading Speed Score	204.7	210.9	208.0	208.8	183.7	238.5	244.0	244.1	202.2	214.7	193.1

<sup>&</sup>lt;sup>1</sup>Multiple responses possible.



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The number preceding the parentheses indicates the number of students, the number enclosed by parentheses indicates the percentage of students in the category (i.e., column heading).

<sup>&</sup>quot;Home schooling, programmed/independent approach, Graduation Equivalency Diploma.

<sup>\*</sup>N/A - not applicable. Column and row criteria are the same.